

REMARKS

Claims 21-53 are pending. Claim 26 is objected to. Claims 44-48 stand rejected under 35 USC § 101. Claims 21-41 and 43-53 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chambers et al. (U.S. Patent Application Publication 2003/0236581) in view of Suzuki et al. (U.S. Patent 6,245,982). Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chambers et al. in view of Suzuki, and further in view of Nishitani et al. (U.S. Patent 7,161,079).

Claim Objections

Claim 26 is objected to for depending from a cancelled claim. Claim 26 has been amended to depend from pending claim 21. Applicant therefore respectfully requests withdrawal of the objection to claim 26.

Rejections under 35 U.S.C. § 101

Claims 44-48 has been amended to recite "non-transitory computer-readable medium." Applicant therefore respectfully requests withdrawal of the rejection under 35 USC § 101.

Rejections under 35 U.S.C. § 103(a)

Chambers

Chambers is directed to a method for recording live performances (Chambers, title). In particular, Chambers is directed to method of using a personal computer to create a digital recording of a substantially continuous audio performance sub-divided by tracks. (Chambers, Abstract).

Chambers further discloses, at [0034]-[0038]:

[0034] The recording software used to process, store, and burn digital audio signals onto the master disc will now be described in greater detail. Before describing the flow of the main software program, it is helpful to first become familiar with the computer screen display that is seen by the recording engineer when such software is running, as indicated in accompanying FIGS. 3, 4 and 5. These figures illustrate the appearance displayed on a user's computer screen when using the main program of the present invention to record the master digital image. "Record" button 101 is used to start recording; a user positions a mouse cursor over such button and "clicks" the mouse to toggle "record" button 101. In FIG. 3, the software program is running, but no recording is taking place. Record button 101 is "enabled" in FIG. 3 in the sense that the Record button can be "depressed" to start recording. In FIGS. 4 and 5, the software program is running, and digital sounds are being recorded onto the computer's hard drive ...

[0037] Referring to FIGS. 3-5, rectangular display area 104 in the upper right portion of the computer screen display is a scrolling graphical display that shows the combined amplitude, or intensity, of the audio signals for both the left and right stereo channels that are available for recording. The most recent sound signal strength is displayed at the very right side of display area 104, and that information scrolls toward the left side of display area 104 as new audio data becomes available.

[0038] Referring to FIGS. 3-5, a pair of graphical "meters" 106 and 108 in the upper left portion of the computer screen display are used to separately indicate audio signal strength for each of the left and right stereo channels that are available for recording. Colored bands of red, yellow and green are presented in each such "meter" to indicate the graphical level of audio input which represents left and right channels.

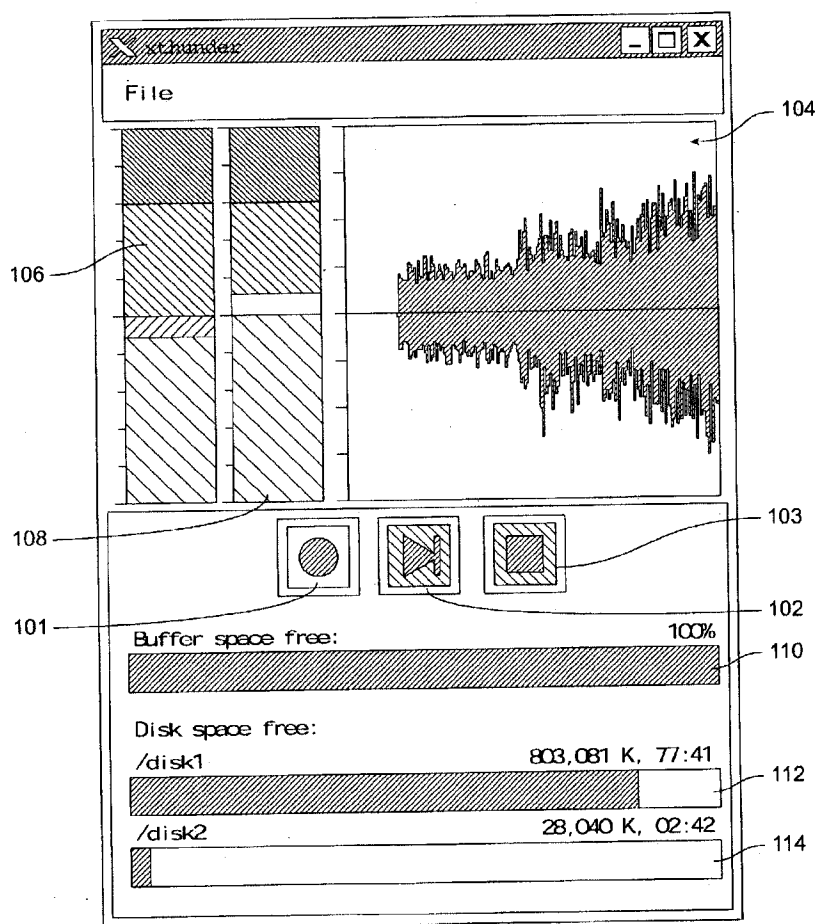


FIG. 3

Suzuki

Suzuki is directed to a "[p]erformance image information creating and reproducing apparatus and method" (Suzuki, title).

Suzuki discloses:

It is therefore a first object of the present invention to provide performance image information creating apparatus and method, and performance image information reproducing apparatus and method, which are capable of displaying image information representing a manner of playing a piece of music while playing the piece of music, and to provide a storage medium storing a program for implementing these methods. (Suzuki, col. 1, lines 39-47)

Suzuki defines a motion waveform as follows:

The motion component database is created by capturing, for each of various musical instruments or parts, the trajectory of motion of a player and a musical instrument in a performance method which is typical of the musical instrument or part, as motion capture data, resolving the motion trajectory of each part of the body of the player or each part of the instrument (hereinafter called "region"), into those of the X, Y and Z-axis directions, and marking the timing of tone generation and tone elimination (beat position in the case of a drum, for example), onto the motion capture data. Each of components of the motion trajectory in the X, Y and Z-axis directions resulting from the resolving of the motion trajectory is called "motion waveform" and the data representing the fractions of performance motion are called "motion components". (Suzuki, col. 8, lines 26-41)

Suzuki also discloses (at col. 10, lines 41-42)

Since motion components corresponding to the above information are read out from the motion component database 20 as described above, the operator is instructed to enter information required for retrieving motion waveforms of regions from the motion component database 20, depending upon the musical instrument or part selected by the operator.

Suzuki discloses, at col. 12, line 30-col. 13, line 3:

In FIG. 6, reference numeral 63 denotes the time schedule of a parts that is a drummer in this case, and 64 and 65 denote the motion waveform of each parts relating to the musical instrument. Each motion waveform is displayed in the form of a rectangle, and, if it contains sounding point markers, the position of each marker is denoted by a triangle that points to the right. In the example of FIG. 6, the parts 63 includes a stick, for example, and the positions of the sounding point markers are displayed. Thus, the performance information of the piece of music that has been already entered is displayed with respect to individual parts, so that the timing of generating and eliminating tones by each parts can be confirmed on the screen. If the sounding and muting point markers of the motion waveform are caused to match the timing of tone generation and tone elimination, musical tones can be generated and eliminated in synchronism with tone-generating (sounding) and tone-eliminating (muting) motions in the performance image.

The playback rate of a motion waveform of each parts can be changed by selecting a rectangle representing the motion waveform of the parts, and changing the length of the rectangle. For example, the playback rate may be reduced by increasing the length. The playback rate may also be automatically changed when the tempo of the piece of music in question is changed.

Further, a straight line having opposite rectangular ends is displayed within a rectangle of each motion waveform, and this straight line represents a portion of the motion waveform that is used for actually reproducing the image. By changing the length and position of the straight line, the portion in the motion waveform that is used for reproducing the image may be selected. The length of the straight line is changed in accordance with changes in the length of the rectangle as indicated above. Also, the lengths of the straight lines and rectangles are changed on the basis of a predetermined musical time unit such as beats and bars or measures.

By selecting the rectangle of each motion waveform, each region contained in the parts may be selected within the image display window 40. This makes it possible to change the motion waveform of each region to any of other variants or candidates, and edit the motion waveform itself. (col. 12, line 30-col. 13, line 3)

Suzuki further discloses, at col. 13, line 28-col. 15, line 38:

FIG. 8 shows the manner of directly editing the motion waveform. In this example, the motion waveform of the region "head (Head A)" is to be edited. If the region "Head A" to be edited is selected in the region selection information window 50 or the image display window 40, the region "Head A" and other regions subordinate to the "Head A" (as denoted by 59 in FIG. 8) which will be influenced by the result of editing of the "Head A" are indicated in a different form (for example, reversed color) than the other regions in the region selection information window 50. At the same time, the selected region and the regions subordinate to the selected region (namely, the regions that are governed or restricted by the selected region) in a 3D image displayed in the image display window 40 are displayed in a different display form (for example, with higher brightness) than the other regions, as indicated by B in FIG. 8. If the operator designates a selected region by double-clicking, for example, a motion waveform display window 70 as shown in FIG. 8 appears on the screen, and the motion waveform of the region is displayed in the window 70. The motion waveform shown in FIG. 8 is that of Head A, which indicate the angle of a vector directed from its subordinate region "Sternum" to the "Head A" with respect to the initial coordinate position of the "Head A". In the motion waveform display window 70 of FIG. 8, the horizontal axis indicates the number of frames, and the vertical axis indicates the angle, while three lines represent angles measured from the X axis, Y axis and the Z axis, respectively.

If the operator changes the position of the region to be edited in the image display window 40, the motion waveform of this region is automatically changed. If the motion waveform displayed in the motion waveform display window 70 is edited, to the contrary, the 3D image displayed in the image display window 40 makes a motion in accordance with the result of editing of the motion waveform.

In the above manner, the motion waveform can be directly edited. The editing of the motion waveform is useful when it is desired to smoothly join two or more types of motion that are synthesized or combined together, for example.

After the motion waveform are edited in the above manner, a certain name may be give to the motion waveform of the region thus edited, and added to the motion waveform database 20. It is also possible to sequentially synthesize or combine two or more types of motion waveform of a certain region, or divide the motion waveform into two or more types, and newly add the results of the synthesis or division to the motion waveform database 20. Once a motion file indicative of the manner of performance of this part is determined, the name of the motion file, pointers (instrument information, performance method) and other information are automatically stored in association with performance information.

After sequence data of each part is created in the above manner, the process of FIG. 5B of integrating sequence data of all of the parts and making overall adjustments thereof is implemented. This process is carried out using a screen as shown in FIG. 9 for editing data relating to all of the parts.

Once the process of FIG. 5B is started, step S31 is executed to paste or attach data of each part onto the edit screen. In this step, each part is designated, and data of the designated part is located on the time schedule along with musical tones and images.

In FIG. 9, reference numeral 80 denotes a window in which the time schedule of all parts is displayed. The window 80 includes a section 81 in which is located scene information relating to a stage, and a section 82 that displays data of each part. In the window 80, vertical dotted lines represent beats, and solid lines represent bars or measures, and each part information is located on the absolute measures and beats established in one piece of music. It is to be noted that the beats and measures shown in the edit screen of FIG. 6 and FIG. 8 for editing data of each part are determined relative to the starting point of the part in question.

The control flow then goes to step S32 to perform an editing operation of scene information. As described above, the scene component database is stored in the storage device 3, and the scene component database contains various types of scene components used for forming an image relating to a performance stage, including background information, light source information and camera (point of view) information. In step S32, desired scene components, such as background

information, camera (point of view) information and light source information, are selected from the scene component database, and pasted onto the section 81 of the window 80 on the time schedule defined by beats and measures. In the example of FIG. 9, three items of camera information G0-G2, two items of background information G3 and G4 and light source information G5 are pasted on the time schedule. These scene components are described in, for example, VRML (Virtual Reality Modeling Language).

Further, control information including a image(s) obtained by actually shooting an object or objects (hereinafter called "actual image(s)") and input from the image/picture input device 13 such as a television camera or VTR and motion picture files prepared by a computer is also stored as scene components in the scene component data for use as background information. ...

Control information for taking in such actual images, which is also a scene component, is pasted on the time schedule determined by a musical time unit such as beats and bars or measures, similarly to other scene components. ...

As in the case of the parts as described above, the scene components may be edited, for example, by selecting a desired one of the scene components on the time schedule of the section 81, and changing the length of the selected scene component. It is also possible to select a certain scene component or scene information pasted in the section 81, so as to display detailed information of this component and edit any item of the detailed information.

Suzuki additionally discloses, at col. 18, lines 1-26:

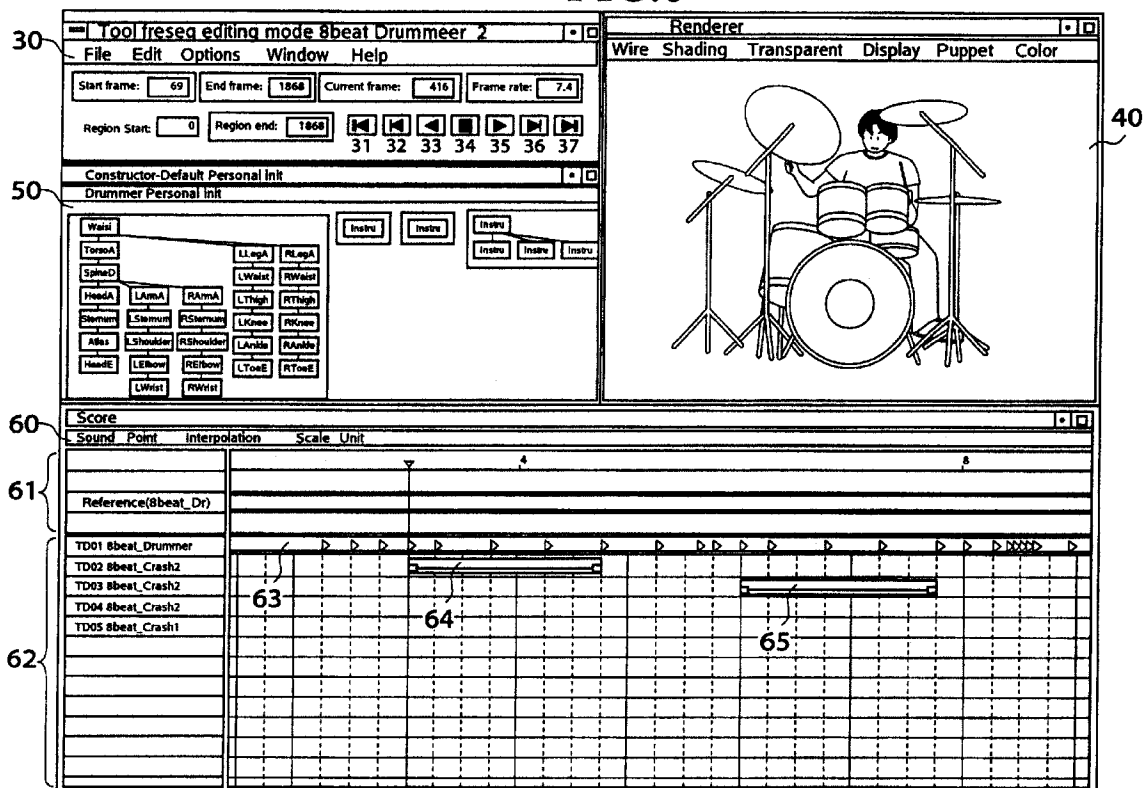
To simply control the time axis as described above with respect to all motions may result in unnatural or awkward images. For example, the motion velocity of the whole series of images is reduced to a half if the tempo is reduced to a half, and, in the case of performance of a drum, this change in the velocity may result in a series of images in which the player touches the drum softly, and the performance looks as if the volume were reduced. To avoid this, positions (from a sounding motion start point to a muting motion point) relating to a sounding or tone generating operation are established for recognition thereof, and the motion velocity from the sounding motion start point to the muting motion point is not changed even with a change in the tempo.

Also, the motion waveform may be modified by use of sound source control parameters, such as an envelope or velocity, generated in the above sound source control parameter generating step S46. Where the motion component in question represents a swinging motion of a cymbal, for example, the swinging motion of the cymbal may be controlled based on musical tone control parameters, such as the velocity or track volume. For example, the motion waveform may be created such that the degree or magnitude of swinging of the cymbal is increased with an increase in the velocity or track volume, and reduced

with a reduction in the velocity or track volume. Thus, a natural manner of playing music can be displayed.

Also, the motion waveform may be modified by use of sound source control parameters, such as an envelope or velocity, generated in the above sound source control parameter generating step S46. Where the motion component in question represents a swinging motion of a cymbal, for example, the swinging motion of the cymbal may be controlled based on musical tone control parameters, such as the velocity or track volume. For example, the motion waveform may be created such that the degree or magnitude of swinging of the cymbal is increased with an increase in the velocity or track volume, and reduced with a reduction in the velocity or track volume. Thus, a natural manner of playing music can be displayed.

FIG. 6



Claim 21

The combination of Chambers and Suzuki fails to teach or suggest multiple features of Claim 21, as well as the combination of features recited in Claim 21.

With respect to claim 21, the Office Action alleges:

Chambers et al. discloses a method of providing synchronization of a video presentation with an audio presentation, comprising:

providing for display on a user system an interactive user interface (Figs. 3-5), the interactive user interface including: an audio waveform corresponding to digital samples of audio over time (Fig. 3); time information displayed in association with the audio waveform (time information can be seen on the x-axis of the audio waveform diagram in the window (104) in Fig. 3).

The Office Action admits:

Chambers et al. fails to disclose a cue insertion interface that enables a user to insert cue at one or more locations with respect to the audio waveform, wherein the cue is configured to cause a modification with respect to the abstract visual presentation in synchronization with the audio presentation when played back; receiving a first signal from a user input device to designate a cue at a first location with respect to the audio waveform; and storing the designated cue in computer readable memory.

Nonetheless, the Office Action relies on Suzuki to supply the features missing from Chambers, alleging:

Suzuki et al. discloses a method of providing synchronization of a video presentation with an audio presentation, comprising: a method of providing synchronization of a video presentation with an audio presentation (Figs. 6, 8, and 9), comprising: a cue insertion interface that enables a user to insert cue at one or more locations with respect to the audio waveform (Fig. 6 — two types of cues can be seen being used to designate information, the arrows and the bars; col. 12, line 30 — col. 13, line 3 - the operator can edit the cues; col. 13, line 28 — col. 15, line 38-motion and scene components (cues) can be edited according to the user's liking), wherein the cue is configured to cause a modification with respect to the abstract visual presentation in synchronization with the audio presentation when played back (col. 18, lines 14-26 - the motion waveform is changed according to the motion components); receiving a first signal from a user input device to designate a cue at a first location with respect to the audio waveform (Fig. 6 — two types of cues can be seen being used to designate information, the arrows and the bars; col. 12, line 30 — col. 13, line 3 - the operator can edit the cues; col. 13, line 28 — col. 15, line 38 - motion and scene components (cues) can be edited according to the user's liking); and storing the designated cue in computer readable memory (col. 14, lines 8-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed the user to edit and insert cues along the audio waveform as disclosed by Suzuki et al. in the method disclosed by Chambers et al. in order to modify the visual presentation of the audio during playback to further engage the user.

However, the Office Action has inadvertently mischaracterized Suzuki. For example, the Office Action alleges that Suzuki discloses "wherein the cue is configured

to cause a modification with respect to the abstract visual presentation in synchronization with the audio presentation when played back (col. 18, lines 14-26 - the motion waveform is changed according to the motion components).” However, because the presentation of Suzuki is not abstract, Suzuki fails to disclose a cue configured to cause a modification with respect to the abstract visual presentation.

The motion waveform of Suzuki referred to by the Office Action is the motion trajectory in the X, Y and Z-axis directions of the musical instrument and the player, and is used to render the player and instrument in image display window 40 of FIG. 6, where the trajectory of motion of a player and a musical instrument in a performance is captured as motion capture data (see, e.g., Suzuki, col. 8, lines 26-41, col. 11, lines 32-39, FIG.6). Suzuki further emphasizes that its system avoids unnatural images, and that it displays a natural manner of playing music (see, e.g., col. 18, lines 1-26). No mention is made of an abstract visual presentation synchronized with an audio presentation. Indeed, Suzuki, which disparages the use of unnatural images, teaches away from causing a modification with respect to an abstract visual presentation in synchronization with an audio presentation when played back. It is improper to combine references where the references teach away from their combination. In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983).

Therefore, because Suzuki lacks at least the feature of “a cue insertion interface that enables a user to insert cue at one or more locations with respect to the audio waveform, wherein the cue is configured to cause a modification with respect to the abstract visual presentation,” even if Suzuki were combined with Chambers as proposed by the Office Action, the combination would still fail to provide the invention as claimed.

In addition, as noted above, Chambers is directed to a method for recording live performances. Suzuki, by contrast, is directed to a performance image information creating apparatus and method and a corresponding performance image information reproducing apparatus and method, capable of displaying a manner of playing a piece of music while playing the piece of music. With respect to the triangles in area 63 of FIG. 6 (which the Office Action refers to as “arrows”), and the rectangles in area 63 of FIG. 6 (which the Office Action refers to as “bars”), Suzuki discloses:

reference numeral 63 denotes the time schedule of a parts that is a drummer in this case, and 64 and 65 denote the motion waveform of each parts relating to the musical instrument. Each motion waveform is displayed in the form of a rectangle, and, if it contains sounding point markers, the position of each marker is denoted by a triangle that points to the right. In the example of FIG. 6, the parts 63 includes a stick, for example, and the positions of the sounding point markers are displayed. ...

The playback rate of a motion waveform of each parts can be changed by selecting a rectangle representing the motion waveform of the parts, and changing the length of the rectangle. For example, the playback rate may be reduced by increasing the length. The playback rate may also be automatically changed when the tempo of the piece of music in question is changed.

Thus, the arrows referred to by the Office Action are sounding point markers, while the bars referred to by the Office Action are used to control the playback tempo. Because the rectangular display area 104 of FIG. 3 of Chambers is a scrolling graphical display that factually shows the combined amplitude of the live audio signals available for recording, one could not use the sounding point markers or tempo control user interfaces of Suzuki to modify the display area 104 of FIG. 3 of Chambers, as one could not control the tempo or sounding points of the live recording of Chambers via the display area 104 (which merely displays the amplitude of live audio signals). Thus, Chambers and Suzuki cannot be combined as proposed by the Office Action.

Further, Applicant respectfully asserts that the proposed modification would render the prior art invention unsatisfactory for its intended purpose. As noted in Section 2143.01 of the MPEP, “[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

As noted above, the arrows referred to by the Office Action are sounding point markers, while the bars referred to by the Office Action are used to control the playback tempo. Assuming the display area 104 could somehow be modified using the “bars” and “arrows” of Suzuki to control the tempo and sounding points of the display area 104 (which assumption Applicant specifically denies), the display area 104 would no longer accurately display the live audio signals, which is its intended purpose.

Therefore, the modification proposed by the Office Action would render the graphical display 104 of Chambers unsuitable for its intended purpose.

Further, if the display area 104 were modified using the “bars” and “arrows” of Suzuki to control the tempo and sounding points of the display area 104, such modification would change the principle of operation of the graphical display area 104, which is configured to display the combined amplitude of the live audio signals available for recording. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)

Indeed, Chambers teaches away from the modification proposed by the Office Action. As discussed above, because Chambers teaches that the display area 104 of FIG 3 is used to display the amplitude of live audio signals, Chambers teaches away from modifying the display area 104 so that it displays tempos and sounding points that are different than those of the live audio signals.

Further, in *KSR*, the Supreme Court explained that “a patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art.” *Id.* at 1739. It further explained that “[r]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, citing *In re Kahn*, 441 F. 3d 977, 988 (Fed. Cir. 2006). “To facilitate review, this analysis should be made explicit.” *Id.* Furthermore, “[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.” *KSR*, 127 S. Ct. at 1742, citing *Graham*, 383 U.S. at 36 (warning against a “temptation to read into the prior art the teachings of the invention in issue” and instructing courts to “guard against slipping into the use of hindsight”).

Here, the Office Action fails to articulate an adequate rational underpinning to support the legal conclusion of obviousness. In alleging that it would have been obvious to have allowed the user to edit and insert cues along the audio waveform as disclosed by Suzuki et al. in the method disclosed by Chambers, the Office Action

provides the following rational "in order to modify the visual presentation of the audio during playback to further engage the user."

However, the rectangular display area 104 of Chambers is a scrolling graphical display that factually shows the combined amplitude of the audio signals available for recording. Thus, the purpose of the display area 104 is to provide factual amplitude information of audio signals available for recording, not to provide an engaging presentation, as set forth by the Office Action. Therefore, the Office Action has failed to provide an adequate rational to modify Chambers with the disclosure of Suzuki.

In addition to the lack of teaching of each of the above-recited features of Claim 21, the combination of Chambers and Suzuki also fails to teach or suggest the combination of features recited in Claim 21. Accordingly, Applicant respectfully requests reconsideration and allowance of Claim 21 and any claims that depend therefrom.

Claim 22

Dependent Claim 22 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of "providing for display via the interactive user interface at least left and right audio channel waveforms," as recited by Claim 22.

The Office Action alleges that reference characters (106) and (108) along with (104) of Chambers display the left and right channels. However, the Office Action has inadvertently mischaracterized Chambers. Chambers discloses that:

a pair of graphical "meters" 106 and 108 in the upper left portion of the computer screen display are used to separately indicate audio signal strength for each of the left and right stereo channels that are available for recording. Colored bands of red, yellow and green are presented in each such "meter" to indicate the graphical level of audio input which represents left and right channels

Thus, it is clear from the above citation, as well as FIGS. 3-5, that rather than display a shape of a wave (a wave form), the meters 106, 108 simply use bands of colors to indicate the level of audio input for the left and right channel. Thus, the meters 106, 108 are not capable of displaying a waveform.

Further, area 104 of Chambers displays a single waveform of the combined amplitude of the audio signals of the left and right channels. Therefore, area 104 of Chambers fails to disclose displaying two waveforms (a left channel waveform and a right channel waveform).

For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 22.

Claim 23

Dependent Claim 23 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of "wherein the first signal indicates the beginning of a guitar riff." The Office Action admits that Chambers fails to disclose the foregoing features. Nonetheless, the Office Action alleges that:

Suzuki et al. discloses in Fig. 9 capturing the waveform of the guitarist (col. 14, lines 25-36). Suzuki et al. also discloses a cue insertion interface that enables a user to insert cue at one or more locations with respect to the audio waveform (Fig. 6 — two types of cues can be seen being used to designate information, the arrows and the bars; col. 12, line 30— col. 13, line 3-the operator can edit the cues; col. 13, line 28- col. 15, line 38- motion and scene components (cues) can be edited according to the user's liking). Therefore, the user would be able to insert a cue to mark the guitar if one desired.

Applicant notes that the Office Action has failed to provide a rational to modify Chambers with Suzuki's alleged ability to insert a cue to mark the guitar, and therefore has failed to make a prima facie case of obviousness with respect to Claim 23.

Further, while FIG. 9 shows a guitarist with a guitar, Suzuki fails to even mention receiving a signal from a user input device indicating the beginning of a guitar riff.

For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 23.

Claim 24

Dependent Claim 24 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of “automatically inserting at least one cue with respect to the audio based at least in part on a signal received from an automated lighting system used to light a live performance,” as recited by Claim 24. The Office Action admits that Chambers fails to disclose the foregoing features. Nonetheless, the Office Action alleges that Suzuki, at Fig. 9 — section 81, col. 2, lines 35-43, and col. 14, lines 37-53 discloses the foregoing feature.

Applicant notes that the Office Action has failed to provide a rationale to modify Chambers with Suzuki’s alleged ability to automatically insert a cue with respect to the audio based at least in part on a signal received from an automated lighting system used to light a live performance, and therefore has failed to make a prima facie case of obviousness with respect to Claim 24.

Further, the Office Action has inadvertently mischaracterized Suzuki. Suzuki discloses a scene component database that contains light source information and a scene file that contains light source information. However, Suzuki fails to even mention a lighting system, much less an automated lighting system used to light a live performance. Therefore, Suzuki does not, and cannot disclose “automatically inserting at least one cue with respect to the audio based at least in part on a signal received from an automated lighting system used to light a live performance,” as recited by Claim 24.

For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 24.

Claim 25

Dependent Claim 25 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of “wherein the signal from the automated lighting system is a spotlight-on signal, a spotlight color signal, or a spotlight position signal,” as recited by Claim 25. The Office Action admits that Chambers fails to disclose the foregoing features. Nonetheless, the

Office Action alleges that Suzuki, at Fig. 9 — section 81, col. 2, lines 35-43, and col. 14, lines 37-53 discloses the foregoing feature.

Applicant notes that the Office Action has failed to provide a rationale to modify Chambers with Suzuki's alleged ability to automatically insert a cue with respect to the audio based at least in part on a signal received from an automated lighting system used to light a live performance, wherein the signal from the automated lighting system is a spotlight-on signal, a spotlight color signal, or a spotlight position signal, and therefore has failed to make a prima facie case of obviousness with respect to Claim 25.

Further, the Office Action has inadvertently mischaracterized Suzuki. Suzuki discloses a scene component database that contains light source information and a scene file that contains light source information. However, Suzuki fails to even mention a spotlight-on signal, a spotlight color signal, or a spotlight position signal. While the Office Action alleges that section 81 of FIG. 9 discloses when the spotlight on, FIG. 9 does not even mention a spotlight-on signal. Instead, FIG. 9, section 81, merely recites the phrase "light". Therefore, Suzuki does not, and cannot disclose "wherein the signal from the automated lighting system is a spotlight-on signal, a spotlight color signal, or a spotlight position signal," as recited by Claim 25.

For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 25.

Claim 26

Dependent Claim 26 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of "inserting at least one cue with respect to the audio based at least in part on monitoring of stage lighting effects," as recited by Claim 26. The Office Action admits that Chambers fails to disclose the foregoing features. Nonetheless, the Office Action alleges that Suzuki, at Fig. 9 — section 81, col. 2, lines 35-43, and col. 14, lines 37-53 discloses the foregoing feature.

Applicant notes that the Office Action has failed to provide a rational to modify Chambers with Suzuki's alleged ability to insert a cue with respect to the audio based at least in part on monitoring of stage lighting effects, and therefore has failed to make a prima facie case of obviousness with respect to Claim 26.

Further, the Office Action has inadvertently mischaracterized Suzuki. Suzuki discloses a scene component database that contains light source information and a scene file that contains light source information. However, Suzuki fails to even mention the monitoring of stage lighting effects. While the Office Action alleges that section 81 of FIG. 9 discloses when the spotlight on, FIG. 9 does not even mention monitoring of stage lighting effects. Instead, FIG. 9, section 81, merely recites the phrase "light". Therefore, Suzuki does not, and cannot disclose "monitoring of stage lighting effects," as recited by Claim 26.

For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 26.

Claim 27

Dependent Claim 27 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of "inserting at least one cue with respect to the audio based at least in part on a singer's singing." The Office Action admits that Chambers fails to disclose the foregoing features. Nonetheless, the Office Action alleges that:

Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising inserting at least one cue with respect to the audio based at least in part on a singer's singing (Suzuki et al.: Fig. 9 - section (81) — the singers are monitored - Chorus (P4); Fig. 6 — two types of cues can be seen being used to designate information, the arrows and the bars; col. 12, line 30— col. 13, line 3-the operator can edit the cues; col. 13, line 28 - col. 15, line 38 - motion and scene components (cues) can be edited according to the user's liking).

Applicant notes that the Office Action has failed to provide a rational to modify Chambers with Suzuki's alleged ability to insert a cue with respect to the audio based at

least in part on a singer's singing, and therefore has failed to make a prima facie case of obviousness with respect to Claim 27.

Further, while FIG. 9 mentions the word "chorus", Suzuki fails to even mention "inserting at least one cue with respect to the audio based at least in part on a singer's singing." For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 27.

Claim 28

Dependent Claim 28 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

The Office Action admits that Chambers fails to disclose the foregoing features. Nonetheless, the Office Action alleges that:

Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising inserting at least one cue with respect to the audio based at least in part on information from a microphone and/or based at least in part on information from a vibration sensor located on or near an instrument (Suzuki et al.: Figs. 4A-4C, 7A-7E, and 8; col. 8, line 57 — col. 9, line 61).

Applicant notes that the Office Action has failed to provide a rational to modify Chambers with Suzuki's alleged ability to insert at least one cue with respect to the audio based at least in part on information from a microphone and/or based at least in part on information from a vibration sensor located on or near an instrument, and therefore has failed to make a prima facie case of obviousness with respect to Claim 28.

For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 28.

Claim 29

Dependent Claim 29 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of "inserting at least one cue with respect to the audio based at least in part on a filter

analysis on the power of a plurality of audio frequency bands.” The Office Action admits that Chambers fails to disclose the foregoing features. Nonetheless, the Office Action alleges that:

Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising inserting at least one cue with respect to the audio based at least in part on a filter analysis on the power of a plurality of audio frequency bands (Suzuki et al: col. 17, lines 50-67).

Applicant notes that the Office Action has failed to provide a rational to modify Chambers with Suzuki’s alleged ability to insert inserting at least one cue with respect to the audio based at least in part on a filter analysis on the power of a plurality of audio frequency bands, and therefore has failed to make a prima facie case of obviousness with respect to Claim 29.

Further, the Office Action has inadvertently mischaracterized Suzuki. Suzuki fails to even mention performing a filter analysis, and so fails to disclose “inserting at least one cue with respect to the audio based at least in part on a filter analysis on the power of a plurality of audio frequency bands.” For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 29.

Claim 30

Dependent Claim 30 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of “wherein the filter analysis cue includes a value to indicate an audio frequency band's strength over an interval of time.” The Office Action admits that Chambers fails to disclose the foregoing features. Nonetheless, the Office Action alleges that:

Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claims 21 and 29 including that the filter analysis cue includes a value to indicate an audio frequency band's strength over an interval of time (Suzuki et al: col. 17, lines 50-67).

Applicant notes that the Office Action has failed to provide a rational to modify Chambers with Suzuki’s alleged disclosure of wherein the filter analysis cue includes a

value to indicate an audio frequency band's strength over an interval of time," and therefore has failed to make a prima facie case of obviousness with respect to Claim 30.

Further, the Office Action has inadvertently mischaracterized Suzuki. Suzuki fails to even mention performing a filter analysis or that a filter analysis cue includes a value to indicate an audio frequency band's strength over an interval of time, and so fails to disclose "wherein the filter analysis cue includes a value to indicate an audio frequency band's strength over an interval of time." For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 30.

Claim 31

Dependent Claim 31 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of "wherein the filter analysis cue includes an indication that a signal of a selected frequency component of having a strength above a predetermined threshold value is present in the audio waveform." The Office Action admits that Chambers fails to disclose the foregoing features. Nonetheless, the Office Action alleges that:

Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claims 21 and 29 including that the filter analysis cue includes an indication that a signal of a selected frequency component of having a strength above a predetermined threshold value is present in the audio waveform (Suzuki et al: col. 17, lines 50-67 — threshold "k").

Applicant notes that the Office Action has failed to provide a rationale to modify Chambers with Suzuki's alleged disclosure of "wherein the filter analysis cue includes an indication that a signal of a selected frequency component of having a strength above a predetermined threshold value is present in the audio waveform," and therefore has failed to make a prima facie case of obviousness with respect to Claim 31.

Further, the Office Action has inadvertently mischaracterized Suzuki. The variable "k" is not a strength threshold value, instead it is a tempo multiplier with respect to a reference tempo. Suzuki fails to even mention performing a filter analysis or a

threshold value, and so fails to disclose "wherein the filter analysis cue includes an indication that a signal of a selected frequency component of having a strength above a predetermined threshold value is present in the audio waveform." For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 31.

Claim 32

Dependent Claim 32 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of "using mixing board automation to generate at least one cue." The Office Action alleges that:

Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising using mixing board automation to generate at least one cue (Chambers et al.: paragraph [00051]).

The Office Action has inadvertently mischaracterized Chambers. Chambers fails to even disclose generating a cue, and therefore fails to disclose "using mixing board automation to generate at least one cue." For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 32.

Claim 33

Dependent Claim 33 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of "using a track pan value to generate a cue." The Office Action alleges that:

Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising using a track pan value to generate a cue (Chambers et al.: the track pan value can be determined from looking at the distribution of the left and right channels as seen in Figs. 3-5).

The Office Action has inadvertently mischaracterized Chambers. Chambers fails to even disclose generating a cue or a track pan value, and therefore fails to disclose

“using a track pan value to generate a cue.” For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 33.

Claim 34

Dependent Claim 34 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of “using track fader adjustments, bus volume, and/or effects send and return levels to generate one or more cues.” The Office Action admits that Chambers fails to disclose the foregoing features. Nonetheless, the Office Action alleges that:

Chambers et al. in view of Suzuki et al. discloses all the limitations as previously discussed with respect to claim 21 including that the method further comprising using track fader adjustments, bus volume, and/or effects send and return levels to generate one or more cues (Suzuki et al.: col. 18, lines 14-26 - volume).

Applicant notes that the Office Action has failed to provide a rationale to modify Chambers with Suzuki’s alleged disclosure of “using track fader adjustments, bus volume, and/or effects send and return levels to generate one or more cues,” and therefore has failed to make a prima facie case of obviousness with respect to Claim 34.

Further, Suzuki fails to disclose using bus volume to generate one or more cues, as alleged by the Office Action. For the foregoing reasons as well, Applicant respectfully traverses the rejection of Claim 34.

Claim 35

Dependent Claim 35 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the combination of Chambers and Suzuki fails to disclose the features of “using an output from a reverb device and/or compressor device to generate one or more cues.” The Office Action admits that neither Chambers nor Suzuki disclose the foregoing features, but argues that:

Official Notice is taken that it is well known in the art to have used an output from a reverb device and/or compressor device to generate one or more cues.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used an output from a reverb device and/or compressor device to generate one or more cues in the method disclosed by Chambers et al. in view of Suzuki et al. in order to enhance the visual display during playback.

The Office Action attempts to take Official Notice of matter that is not “capable of instant and unquestionable demonstration”, as expressly required by section 2144.03(A) of the MPEP. Further, “[a]ssertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art.” MPEP 2144.03(A). Thus, the Office Action’s attempt to officially notice that it is well known in the art to have used an output from a reverb device and/or compressor device to generate one or more cues is improper as a matter of law.

Proper use of Official Notice requires compliance with several obligations expressly set forth in the Manual of Patent Examining Procedure. The Office has failed to meet these obligations. Specifically, the Office has failed to satisfy its obligations under MPEP § 2144.03. MPEP § 2144.03 (B), for example, expressly requires the Office to provide specific factual findings predicated on sound technical and scientific reasoning to support taking Official Notice. The MPEP goes on to explain that this means that the Office should present an Applicant with the explicit basis on which Official Notice is based so that the Applicant is able to challenge the assertion in the next reply after the Office action. (MPEP §2144.03(B)). Naked assertions about what is allegedly known in the art, like those noted, cannot satisfy these requirements.

In sum, the Office Action’s assertion of Official Notice is improper and traversed. For this reason as well, Applicant respectfully traverses the rejection of Claim 35.

Claim 36

Dependent Claim 36 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the Office Action admits that the combination of Chambers and Suzuki fails to disclose the features of “providing for display text describing the cue with the cue, and providing for display abbreviated text describing a second cue in association

with the second cue, wherein the abbreviation is performed at partly in response to a spacing of the second cue with respect to another cue.”

Nonetheless, the Office Action asserts:

Official Notice is taken that it is well-known in the art to add text to a display to explain what is going on. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added text to the display in the method disclosed by Chambers et al. in view of Suzuki et al. in order to notify the user of what is going on during the audio presentation, which will further enhance the user's experience.

However, the Office Action has failed to address each element of the claim, and so has failed to make a prima facie case of obviousness. For example, the Office Action has failed to address the features of “providing for display abbreviated text describing a second cue in association with the second cue, wherein the abbreviation is performed at partly in response to a spacing of the second cue with respect to another cue.”

For this reason as well, Applicant respectfully traverses the rejection of Claim 36.

Claim 37

Dependent Claim 37 is believed to be in condition for allowance over the cited art at least for the same reasons as its base claims, as well as its unique patentable features.

Further, the Office Action admits that the combination of Chambers and Suzuki fails to disclose the features of “wherein the designated cue is a rotation cue indicating a rotation speed of at least a first displayed object.”

Nonetheless, the Office Action asserts “Official Notice is taken that it is well-known in the art to have a rotation cue indicating a rotation speed of at least a first displayed object.”

The Office Action attempts to take Official Notice of matter that is not “capable of instant and unquestionable demonstration”, as expressly required by section 2144.03(A) of the MPEP. Further, “[a]ssertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art.” MPEP 2144.03(A). Thus, the Office Action’s attempt to officially notice that it is well known in

the art to have a rotation cue indicating a rotation speed of at least a first displayed object is improper as a matter of law.

Proper use of Official Notice requires compliance with several obligations expressly set forth in the Manual of Patent Examining Procedure. The Office has failed to meet these obligations. Specifically, the Office has failed to satisfy its obligations under MPEP § 2144.03. MPEP § 2144.03 (B), for example, expressly requires the Office to provide specific factual findings predicated on sound technical and scientific reasoning to support taking Official Notice. The MPEP goes on to explain that this means that the Office should present an Applicant with the explicit basis on which Official Notice is based so that the Applicant is able to challenge the assertion in the next reply after the Office action. (MPEP §2144.03(B)). Naked assertions about what is allegedly known in the art, like those noted, cannot satisfy these requirements.

In sum, the Office Action's assertion of Official Notice is improper and traversed.

For this reason as well, Applicant respectfully traverses the rejection of Claim 37.

Claims 44-48

In rejecting Claims 44-48, the Office Action relies on the rationale for rejecting Claims 21, 22, 24, 40, and 41. Therefore, Applicant traverses the rejection of Claims 44-48 as similarly described above.

For example, the combination of Chambers and Suzuki fails to disclose or suggest the following features of Claim 44:

A tangible, non-transitory computer-readable medium having computer-executable instructions stored thereon that, if executed by a computing device, cause the computing device to perform operations comprising:

providing for display on a user system an interactive user interface, the interactive user interface including:

an audio waveform corresponding to digital samples of audio over time;

time information displayed in association with the audio waveform;

a cue insertion interface that enables a user to insert cue at one or more locations with respect to the audio waveform, wherein the cue is configured to cause a modification with respect to the abstract visual presentation in synchronization with the audio presentation when played back;

receiving a first signal from a user input device to designate a cue at a first location with respect to the audio waveform; and

storing the designated cue in computer readable memory.

Accordingly, Applicant respectfully requests reconsideration and allowance of Claim 44 and any claims that depend therefrom.

Claims 49-53

In rejecting Claims 49-53, the Office Action relies on the rationale for rejecting Claims 21, 22, 24, 40, and 41. Therefore, Applicant traverses the rejection of Claims 49-53 as similarly described above. For example, the combination of Chambers and Suzuki fails to disclose or suggest the following features of Claim 49:

An apparatus for providing an audio presentation, the apparatus comprising:
a processor;
tangible computer-readable medium having processor-executable instructions stored thereon that, if executed by processor, cause the processor to perform operations comprising:
providing for display on a user system an interactive user interface, the interactive user interface including:
an audio waveform corresponding to digital samples of audio over time;
time information displayed in association with the audio waveform;
a cue insertion interface that enables a user to insert cue at one or more locations with respect to the audio waveform, wherein the cue is configured to cause a modification with respect to the abstract visual presentation in synchronization with the audio presentation when played back;
receiving a first signal from a user input device to designate a cue at a first location with respect to the audio waveform; and
storing the designated cue in computer readable memory.

Accordingly, Applicant respectfully requests reconsideration and allowance of Claim 49 and any claims that depend therefrom.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this

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or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.


Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: April 1, 2010

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